



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (amended by Regulation (EU) No 2020/878)

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Version : 4.1

Indication of changes : §1.2 - §2.3 - §4.1 - §4.2 - §5.1 - §5.2 - §5.3 - §6.1 - §7.1 - §7.2 - §8.2 - §10.6 - §11.1 - §13.1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Safety Data Sheet : 32645
Product name: : PROTOLIN 4000 HARS

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses : resin
Uses advised against : No information available.

1.3. Details of the supplier of the safety data sheet

Supplier : LOVINK ENERTECH B.V.
Postbus 111
7060 AC Terborg
The Netherlands
Telephone : +31 315 335600
Responsible for the compilation of the SDS on behalf of the supplier/ manufacturer : hazcom@philips.com

1.4. Emergency telephone number

Emergency telephone number (regarding transport of DG) : +31 (0)497-598315

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

2.1.1. Classification according to Regulation (EC) No 1272/2008 [CLP]

Not classified

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

none

Remarks on labelling : none.

2.3. Other hazards

Special danger of slipping by leaking/spilling product.

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

SECTION 3: Composition / information on ingredients

3.2. Mixture

| CAS No. | EC No. | REACH No. | Concentration (%) | Classification according to Regulation (EC) No 1272/2008 [CLP] | SCL / M-factor / ATE |
|------------|-----------|-----------|-------------------|--|----------------------|
| LIMESTONE | | | | | |
| 1317-65-3 | 215-279-6 | | ≥25.0 - <55.0 | | |
| CASTOR OIL | | | | | |
| 8001-79-4 | 232-293-8 | | ≥15.0 - <40.0 | | |

Full text of H- and EUH-statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

- General information** : When in doubt or if symptoms are observed, get medical advice.
- Following inhalation** : Provide fresh air.
- Following skin contact** : After contact with skin, wash immediately with plenty of water and soap.
- After eye contact** : Rinse immediately carefully and thoroughly with eye-bath or water.
- Following ingestion** : Rinse mouth thoroughly with water. Give nothing to eat or drink.
- Self-protection of the first aider** : First aider: Pay attention to self-protection!

4.2. Most important symptoms and effects, both acute and delayed

Adverse human health effects and symptoms / Organs affected:

Under normal conditions of use no symptoms and effects are to be expected. However, deviation of the intended use may result in the following symptoms dependent on the route of exposure:

- Following inhalation** : Prickling sensation. May cause:., sore throat
- Following skin contact** : Prickling sensation. May cause:., redness, Has degreasing effect on the skin.
- After eye contact** : Prickling sensation. May cause:., redness
- Following ingestion** : Prickling sensation. May cause:., sore throat

Further information: SECTION 11: Toxicological information

4.3. Indication of any immediate medical attention and special treatment needed

- Notes for the doctor** : Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media** : Fire class B: - Dry extinguishing powder. - Foam. - Carbon dioxide (CO₂).
- Unsuitable extinguishing media** : Wet chemical. - Water.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

- In case of fire may be liberated** : Carbon monoxide - Carbon dioxide (CO₂) - calcium oxide

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. Flame-retardant protective clothing. (EN 469)

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- Personal precautions** : Use personal protection equipment. Special danger of slipping by leaking/spilling product.

6.1.1. For non-emergency personnel

- Protective equipment** : Personal protection equipment: see section 8.
- Emergency procedures** : not applicable.

6.1.2. For emergency responders

- Personal protection equipment** : Personal protection equipment: see section 8.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains. Ensure waste is collected and contained.

6.3. Methods and material for containment and cleaning up

6.3.1. For containment

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

6.3.2. For cleaning up

Collect in closed and suitable containers for disposal. Clean contaminated articles and floor according to the environmental legislation.

6.3.3. Other information

not determined

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling : No special handling advices are necessary.

Measures to prevent fire : The product is not:Flammable.No special fire protection measures are necessary.

Measures to prevent aerosol and dust generation : Not dust explosive.

Environmental precautions : Avoid release to the environment.

Advices on general occupational hygiene : When using do not eat, drink, smoke, sniff.Take off contaminated clothing.Wash hands before breaks and after work.

Further information : No information available.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions : Store in a closed container. - dark. - Store in a cool dry place. - Keep away from: ignition sources or heat sources.

storage temperature : No information available.

Requirements for storage rooms and vessels : No information available.

Storage class : No information available.

Materials to avoid : No information available.

Further information on storage conditions : No information available.

7.3. Specific end use(s)

Recommendation : not applicable

Industrial sector specific solutions : No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limit values

| Substance name | Limit value | Belgium | | China | | United Kingdom | | | |
|----------------|-------------|-------------------|-----|-------------------|-----|-------------------|-----|--|--|
| | | mg/m ³ | ppm | mg/m ³ | ppm | mg/m ³ | ppm | | |
| LIMESTONE | | | | (respirable dust) | | (inhalable dust) | | | |
| | 8 hour(s) | 10 | | 4 | | 10 | | | |
| | 15 minutes | | | | | 30 | | | |
| LIMESTONE | C | | | | | | | | |
| | | | | (dust) | | (respirable dust) | | | |
| | 8 hour(s) | | | 8 | | 4 | | | |
| | 15 minutes | | | | | 12 | | | |
| | C | | | | | | | | |

Source : SUVA, Dutch Health Council, 2006/15/EC, 2004/37/EC, LOLI DB, 2000/39/EC, GWBB/VLEP, Gestis, 91/322/EEC, 2017/164/EU, INRS (Fr), TRGS 905, TRGS 910, Austrian OEL Regulation, Dutch Social-Economic Council (SER), US OSHA, EU OSHA, TRGS 900, ACGIH®, 2009/161/EU

20 °C, 1013 mbar: European Union / China / South Korea

25 °C, 1013 mbar: United States / Canada / Japan

[X]: appraisal period x minutes
C: peak limitation
H: skin resorptive
S: Statutory threshold limit value
ALARA: As low as reasonably achievable (ALARA principle).

Remark Occupational exposure limit values

none

DNEL (Derived No Effect Level (DNEL-value))

No information available.

PNEC (Predicted No Effect Concentration (PNEC-value))

No information available.

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations. Use explosion-proof machinery, apparatus, ventilation facilities, tools etc. Safe handling: see section 7 Technical measures and the application of suitable work processes have priority over personal protection equipment.

8.2.2. Personal protection equipment

Eye/face protection : Suitable eye protection: Eye glasses with side protection.

Skin protection

Hand protection : Suitable material: Butyl caoutchouc (butyl rubber).

Body protection : Only wear fitting, comfortable and clean protective clothing. Suitable protective clothing: lab coat.
Chemical resistant safety shoes.

Respiratory protection : If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Use only respiratory protection equipment with CE-symbol including four digit test number. Suitable respiratory protection apparatus: Filter type: AX.

8.2.3. Environmental exposure controls

See section 7. No additional measures necessary.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|--|
| Physical state | : Liquid |
| Appearance | : Liquid, viscous |
| Colour | : white - yellow |
| Odour | : No information available. |
| Odour threshold | : No information available. |
| pH | : not applicable |
| Melting point/freezing point | : No information available. |
| Initial boiling point and boiling range | : No information available. |
| Flash point | : >125 °C |
| Evaporation rate | : No information available. |
| flammability | : No information available. |
| Upper/lower flammability or explosive limits | |
| Upper explosion limit | : No information available. |
| Lower explosion limit | : No information available. |
| Vapour pressure | : No information available. |
| Vapour density | : No information available. |
| Relative density | : No information available. |
| Solubility(ies) | |
| Water | : practically insoluble |
| Partition coefficient n-octanol/water | : No information available. |
| Auto-ignition temperature | : No information available. |
| Decomposition temperature | : No information available. |
| Viscosity | : $\geq 1.0 \text{ Pa}\cdot\text{s}$ (25 °C) |
| Explosive properties: | : not applicable |
| Oxidising properties | : not applicable |

9.2. Other information

| | |
|---|-----------------------------|
| Critical temperature T_c | : not applicable |
| Fat solubility | : No information available. |

SECTION 10: Stability and reactivity

10.1. Reactivity

This material is considered to be non-reactive under normal use conditions.

10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid

Stable under recommended storage and handling conditions.

10.5. Incompatible materials

Oxidising substances - Acids - Strong bases

10.6. Hazardous decomposition products

Acrolein - Decomposition products in case of fire: see section 5.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

| | |
|--|--|
| Acute toxicity | : not applicable |
| Following ingestion | : No |
| Skin contact | : No |
| Inhalation | : No |
| Skin corrosion/irritation | : not applicable |
| Serious eye damage/eye irritation | : not applicable |
| Respiratory or skin sensitisation | : not applicable |
| Germ cell mutagenicity | : No indications of human germ cell mutagenicity exist. |
| Carcinogenicity | : No indication of human carcinogenicity. |
| Reproductive toxicity | : No indications of human reproductive toxicity exist. |
| STOT-single exposure | : not applicable |
| STOT-repeated exposure | : not applicable |
| Aspiration hazard | : not applicable |
| Symptoms | |
| Following inhalation | : Prickling sensation. May cause:, sore throat |
| Following skin contact | : Prickling sensation. May cause:, redness, Has degreasing effect on the skin. |
| After eye contact | : Prickling sensation. May cause:, redness |
| Following ingestion | : Prickling sensation. May cause:, sore throat |

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

11.2.2. Other information

No information available.

SECTION 12: Ecological information

12.1. Toxicity

No information available.

12.2. Persistence and degradability

Biodegradation : No information available.

Chemical oxygen demand (COD) : No information available.
Biochemical oxygen demand : No information available.
BOD5/COD ratio : No information available.

12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

Bioconcentration factor (BCF) : No information available.
Partition coefficient n-octanol/water : No information available.

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

No information available.

12.8. Additional ecotoxicological information

Observe local regulations concerning effluent treatment. The viscous consistency of the product can lead to problems in transport pipes and sewage plants.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Waste should not be disposed of by release to water, drainage, sewer, or the ground. Disposal should be in accordance with applicable regional, national and local laws and regulations.

Other disposal recommendations : not applicable

SECTION 14: Transport information

14.1. UN number or ID number

No dangerous good in sense of these transport regulations.

14.2. UN proper shipping name

No dangerous good in sense of these transport regulations.

14.3. Transport hazard class(es)

No dangerous good in sense of these transport regulations.

14.4. Packing group

No dangerous good in sense of these transport regulations.

14.5. Environmental hazards

Marine pollutant : No

14.6. Special precautions for user

No dangerous good in sense of these transport regulations.

14.7. Maritime transport in bulk according to IMO instruments

No information available.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

International regulations:

Minamata Convention on Mercury : not applicable

EU legislation

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]
not applicable

This mixture contains the following substances of very high concern (SVHC) which are subject to authorisation according to Annex XIV of REACH:
not applicable

Overall Assessment on CMR properties
according to Regulation (EC) No. 1907/2006 (REACH) : not applicable

Regulation (EC) No 850/2004 [POP-Regulation]
not applicable

Regulation (EC) No. 2037/2000 concerning materials, which cause damage to the ozone layer.
not applicable

Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

Observe employment restrictions under the Maternity Protection Directive 92/85/EEC or stricter national regulations, if applicable.

15.2. Chemical Safety Assessment

No information available.

SECTION 16: Other information

Additional information

none

Relevant H-phrases (Number and full text)

not applicable

Abbreviations and acronyms

| | |
|-----------|---|
| ACGIH® | American Conference of Governmental Industrial Hygienists |
| ADR | Accord européen relatif au transport international des marchandises Dangereuses par Route |
| AICS | Australian Inventory of Chemical Substances |
| BuAc | n-Butyl acetate |
| CAS | Chemical Abstracts Service |
| CCID | New Zealand Chemical Classification and Information Database |
| DSL | Canada Domestic Substances List |
| ECHA-RAC | ECHA Committee for Risk Assessment |
| EFSA | European Food Safety Authority |
| EHSP | OECD Environment, Health, and Safety Publication |
| EmS | Emergency Schedule |
| EU-CLH | European Union Harmonised Classification and Labelling |
| GESTIS | Databases on hazardous substances of the German Social Accident Insurance |
| GHS | Globally Harmonised System of Classification and Labelling of Chemicals |
| GWBB-VLEP | Grenswaarden voor beroepsmatige blootstelling/Valeurs limites d'exposition professionnelle |
| HHS | U.S. Department of Health and Human Services |
| HSDB | Hazardous Substances Data Bank |
| IARC | International Agency for Research on Cancer |
| IATA | International Air Transport Association |
| ICAO | International Civil Aviation Organization |
| IMDG | International Maritime Dangerous Goods |
| IMO | International Maritime Organization |
| INRS | French National Research and Safety Institute for the Prevention of Occupational Accidents and Diseases |
| JP-GHS | Japan GHS Basis for Classification Data |
| KHC | Known human carcinogens. |
| LEL | Lower explosion limit |
| LOLI | LOLI (List of Lists) Database |
| n.a. | not applicable |
| NDSL | Canada Non-domestic Substance List |
| NICNAS | Australia National Industrial Chemicals Notification and Assessment Scheme |
| NIER | South Korea National Institute of Environmental Research Evaluations |
| NLM | United States National Library of Medicine |
| NTP | National Toxicology Program |
| NZIoC | New Zealand Inventory of Chemicals |
| OECD | Organisation for Economic Co-operation and Development |
| OSHA | Occupational Safety & Health Administration |
| OUE | European Odour Unit |

| | |
|--------|--|
| RAHC | Reasonably Anticipated Human Carcinogen |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals |
| RID | Regulations concerning the International Carriage of Dangerous Goods by Rail |
| SCOEL | Scientific Committee on Occupational Exposure Limits (EU) |
| SIDS | OECD Screening Information Data Sets |
| SUVA | Swiss Accident Insurance Fund |
| TRGS | Technische Regeln für Gefahrstoffe |
| TSCA | The Toxic Substances Control Act Chemical Substance Inventory |
| TWA | Time Weighted Average |
| UEL | Upper explosion limit |
| UN | United Nations |
| US-EPA | United States Environmental Protection Agency |

Disclaimer: The information provided in this Safety Data Sheet is believed to be correct as of the date issued. Philips Electronics Nederland B.V. makes no warranty as to its contents, nor as to its fitness for any particular purpose or use.



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (amended by Regulation (EU) No 2020/878)

Date last verification : 2023-03-15
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Version : 10.1

Indication of changes : §1.2 - §2.2 - §2.3 - §4.1 - §4.2 - §5.1 - §6.1 - §6.2 - §7.1 - §8.1 - §8.2 - §10.4 - §10.5 - §10.6 - §11.1 - §13.1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Safety Data Sheet : 24742
Product name: : PROTOLIN HARDER

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses : Hardener
Uses advised against : No information available.

1.3. Details of the supplier of the safety data sheet

Supplier : LOVINK ENERTECH B.V.
Postbus 111
7060 AC Terborg
The Netherlands
Telephone : +31 315 335600
Responsible for the compilation of the SDS on behalf of the supplier/manufacturer : hazcom@philips.com

1.4. Emergency telephone number

Emergency telephone number (regarding transport of DG) : +31 (0)497-598315

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

2.1.1. Classification according to Regulation (EC) No 1272/2008 [CLP]

| | | |
|--|------------|------|
| Skin corrosion/irritation | Category 2 | H315 |
| Respiratory or skin sensitisation | Category 1 | H317 |
| Serious eye damage/eye irritation | Category 2 | H319 |
| Acute toxicity, Inhalation | Category 4 | H332 |
| Respiratory or skin sensitisation | Category 1 | H334 |
| Specific target organ toxicity - single exposure | Category 3 | H335 |
| Carcinogenicity | Category 2 | H351 |
| Specific target organ toxicity - repeated exposure | Category 2 | H373 |

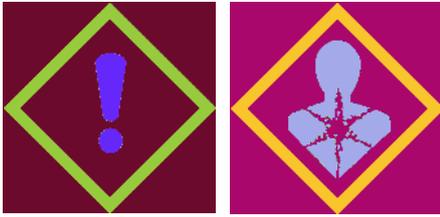
2.1.2. Additional information

Full text of H- and EUH-statements: see section 16.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms



Signal word : Danger !

Hazard statements

- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H335 May cause respiratory irritation.
- H351 Suspected of causing cancer.
- H373 May cause damage to organs through prolonged or repeated exposure.
- EUH204 Contains isocyanates. May produce an allergic reaction.

Precautionary statements

- P201 Obtain special instructions before use.
- P260.2 Do not breathe mist/vapours/spray.
- P264 Wash hands thoroughly after handling.
- P271 Use only outdoors or in a well-ventilated area.
- P280.5 Wear protective gloves/protective clothing/eye protection/face protection.
- P284 [In case of inadequate ventilation] wear respiratory protection.
- P302+P352 IF ON SKIN: Wash with plenty of soap and water.
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P308+P313 IF exposed or concerned: Get medical advice/attention.
- P321 Specific treatment.
- P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
- P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
- P362+P364 Take off contaminated clothing and wash it before reuse.
- P403+P233 Store in a well-ventilated place. Keep container tightly closed.
- P405 Store locked up.
- P501 Dispose of contents/container according to local hazardous waste disposal regulations.

Hazardous ingredients

- 4,4'-METHYLENEDIPHENYL DIISOCYANATE
- 2,4'-METHYLENEDIPHENYL DI-ISOCYANATE
- DIPHENYLMETHANEDIISOCYANATE, ISOMERES AND HOMOLOGUES
- 2,2'-METHYLENEDIPHENYL DIISOCYANATE

Remarks on labelling

As from 24 August 2023 adequate training is required before industrial or professional use.

2.3. Other hazards

Special danger of slipping by leaking/spilling product.
 The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.
 This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.
 This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

SECTION 3: Composition / information on ingredients

3.2. Mixture

| CAS No. | EC No. | REACH No. | Concentration (%) | Classification according to Regulation (EC) No 1272/2008 [CLP] | SCL / M-factor / ATE |
|---|-----------|------------------|-------------------|---|---|
| 4,4'-METHYLENEDIPHENYL DIISOCYANATE | | | | | |
| 101-68-8 | 202-966-0 | 01-2119457014-47 | ≥50.0 - <75.0 | GHS07 GHS08 H315 Skin Irrit. 2 H317 Skin Sens. 1 H319 Eye Irrit. 2 H332 Acute Tox. 4 H334 Resp. Sens. 1 H335 STOT SE 3 H351 Carc. 2 H373 STOT RE 2 EUH204 | STOT SE 3; H335; C: ≥5 % Resp. Sens. 1; H334; C: ≥0.1 % Skin Irrit. 2; H315; C: ≥5 % Eye Irrit. 2; H319; C: ≥5 % |
| 2,4'-METHYLENEDIPHENYL DI-ISOCYANATE | | | | | |
| 5873-54-1 | 227-534-9 | 01-2119480143-45 | ≥25.0 - <50.0 | GHS07 | Eye Irrit. 2; H319; C: ≥5 % |

| CAS No. | EC No. | REACH No. | Concentration (%) | Classification according to Regulation (EC) No 1272/2008 [CLP] | SCL / M-factor / ATE |
|---|-----------|------------------|-------------------|---|---|
| | | | | GHS08 H315 Skin Irrit. 2 H317 Skin Sens. 1 H319 Eye Irrit. 2 H332 Acute Tox. 4 H334 Resp. Sens. 1 H335 STOT SE 3 H351 Carc. 2 H373 STOT RE 2 | Skin Irrit. 2; H315; C: ≥5 % Resp. Sens. 1; H334; C: ≥0.1 % STOT SE 3; H335; C: ≥5 % |
| DIPHENYLMETHANEDIISOCYANATE, ISOMERES AND HOMOLOGUES | | | | | |
| 9016-87-9 | 905-804-3 | | ≥10.0 - <20.0 | GHS07 GHS08 H315 Skin Irrit. 2 H317 Skin Sens. 1 H319 Eye Irrit. 2 H332 Acute Tox. 4 H334 Resp. Sens. 1 H335 STOT SE 3 H351 Carc. 2 H373 STOT RE 2 | Eye Irrit. 2; H319; C: ≥5 % Skin Irrit. 2; H315; C: ≥5 % Resp. Sens. 1; H334; C: ≥0.1 % STOT SE 3; H335; C: ≥5 % |
| 2,2'-METHYLENEDIPHENYL DIISOCYANATE | | | | | |
| 2536-05-2 | 219-799-4 | 01-2119927323-43 | ≥3.0 - <5.0 | GHS07 GHS08 H315 Skin Irrit. 2 H317 Skin Sens. 1 H319 Eye Irrit. 2 H332 Acute Tox. 4 H334 Resp. Sens. 1 H335 STOT SE 3 H351 Carc. 2 H373 STOT RE 2 EUH204 | Eye Irrit. 2; H319; C: ≥5 % Skin Irrit. 2; H315; C: ≥5 % Resp. Sens. 1; H334; C: ≥0.1 % STOT SE 3; H335; C: ≥5 % |

Full text of H- and EUH-statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

- General information** : Remove casualty to fresh air and keep warm and at rest. Transport affected person in lying position, in case of shortness of breath in half-sitting position. Remove contaminated, saturated clothing immediately. Wear personal protection equipment (refer to section 8). Remove affected person from the danger area and lay down. Do not leave affected person unattended. Never give anything by mouth to an unconscious person or a person with cramps. No mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator.
- Following inhalation** : In case of allergic symptoms, especially in the breathing area, seek medical advice immediately.
- Following skin contact** : Rinse cautiously with water for several minutes. Call a doctor.
- After eye contact** : Rinse immediately carefully and thoroughly with eye-bath or water. Consult an ophthalmologist.
- Following ingestion** : Rinse mouth thoroughly with water. Give nothing to eat or drink. Never give anything by mouth to an unconscious person or a person with cramps. Immediately call a doctor.
- Self-protection of the first aider** : First aider: Pay attention to self-protection!

4.2. Most important symptoms and effects, both acute and delayed

Adverse human health effects and symptoms / Organs affected:

Organs affected:; lung, Take into account the (potential) effects of a hydrolysis or decomposition reaction or a reaction with water.

- Following inhalation** : Irritating feeling. May cause:; sore throat, Cough, Asthmatic complaints, Respiratory complaints
- Following skin contact** : Irritating feeling. May cause:; redness, pain
- After eye contact** : Irritating feeling. May cause:; Allergic reactions, Has degreasing effect on the skin.
- Following ingestion** : Irritating feeling. May cause:; sore throat, Abdominal pain

Further information: SECTION 11: Toxicological information

4.3. Indication of any immediate medical attention and special treatment needed

- Notes for the doctor** : Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Fire class B: - Carbon dioxide (CO₂). - Foam. - Dry extinguishing powder.

Unsuitable extinguishing media : Wet chemical. - Water.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

In case of fire may be liberated : Nitrogen oxides (NO_x) - Hydrogen cyanide (hydrocyanic acid) - isocyanate vapours

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. Protective clothing. (EN 469)

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protection equipment. Special danger of slipping by leaking/spilling product.

6.1.1. For non-emergency personnel

Protective equipment : Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Emergency procedures : Health hazard. See section 6 and 4 of the safety data sheet. Health hazard! Evacuate area.

6.1.2. For emergency responders

Personal protection equipment : Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.2. Environmental precautions

Collect spillage. Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Do not allow to enter into soil/subsoil. Ensure waste is collected and contained.

6.3. Methods and material for containment and cleaning up

6.3.1. For containment

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

6.3.2. For cleaning up

Collect in closed and suitable containers for disposal. Clean contaminated articles and floor according to the environmental legislation.

6.3.3. Other information

not determined

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures : Persons with a history of skin sensitisation problems should not be employed in any process in which this product is used.

Advices on safe handling : Do not breathe gas/fumes/vapour/spray. Avoid exposure - obtain special instructions before use. Do not get in eyes, on skin, or on clothing. Provide adequate ventilation as well as local exhaust at critical locations. If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Measures to prevent fire : The product is not: Flammable. No special fire protection measures are necessary.

Measures to prevent aerosol and dust generation : Use only in well-ventilated areas. Provide adequate ventilation as well as local exhaust at critical locations.

Environmental precautions : Avoid release to the environment.

Advices on general occupational hygiene : When using do not eat, drink, smoke, sniff. Take off contaminated clothing. Wash hands before breaks and after work.

Further information : No information available.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions : Store in a closed container. - Store in a well-ventilated place. - Keep container dry.

storage temperature : No information available.

Requirements for storage rooms and vessels : No information available.

Storage class : No information available.
Materials to avoid : No information available.
Further information on storage conditions : No information available.

7.3. Specific end use(s)

Recommendation : not applicable
Industrial sector specific solutions : No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limit values

| Substance name | Limit value | The Netherlands | | Germany | | France | | Austria | |
|--|-------------|-------------------|--------|-----------------------|-----|--------------------|-----|--------------------|---------------------|
| | | mg/m ³ | ppm | mg/m ³ | ppm | mg/m ³ | ppm | mg/m ³ | ppm |
| 4,4'-METHYLENEDIPHENYL DIISOCYANATE | 8 hour(s) | | | | H | 0.1 | | 0.05 | |
| | 15 minutes | | | | | 0.2 ^[5] | | 0.1 ^[5] | 0.01 ^[5] |
| | C | | | 0.05 | | | | | |
| 2,4'-METHYLENEDIPHENYL DI-ISOCYANATE | 8 hour(s) | | | 0.05 | | | | 0.05 | 0.005 |
| | 15 minutes | | | | | | | 0.1 ^[5] | 0.01 ^[5] |
| | C | | | 0.1 | | | | | |
| DIPHENYLMETHANEDIISOCYANATE, ISOMERES AND HOMOLOGUES | 8 hour(s) | | | (MDI, inhalable dust) | | | | | |
| | 15 minutes | | | 0.05 | | | | | |
| | C | | | 0.05 | | | | | |
| 2,2'-METHYLENEDIPHENYL DIISOCYANATE | 8 hour(s) | (Cyanides) | H S | 0.05 | | | | 0.05 | 0.05 |
| | 15 minutes | 1 | | 0.05 | | | | 0.1 ^[5] | 0.01 ^[5] |
| | C | 5 | | 0.10 | | | | | |

| Substance name | Limit value | Belgium | | Switzerland | | China | | Spain | |
|-------------------------------------|-------------|-------------------|-----|-------------------|-----|-------------------|-----|-------------------|-----|
| | | mg/m ³ | ppm |
| 4,4'-METHYLENEDIPHENYL DIISOCYANATE | 8 hour(s) | 0.052 | | | | 0.05 | | 0.052 | |
| | 15 minutes | | | 0.02 | | 0.1 | | | |
| | C | | | | | | | | |
| 2,2'-METHYLENEDIPHENYL DIISOCYANATE | 8 hour(s) | | | (Isocyanates) | | (Cyanides) | | H | |
| | 15 minutes | | | 0.02 | | 1 | | | |
| | C | | | 0.02 | | | | | |

| Substance name | Limit value | Norway | | Poland | | Portugal | | Russia | |
|--------------------------------------|-------------|-------------------|-------|-------------------|-----|-------------------|-------|-------------------|-----|
| | | mg/m ³ | ppm | mg/m ³ | ppm | mg/m ³ | ppm | mg/m ³ | ppm |
| 4,4'-METHYLENEDIPHENYL DIISOCYANATE | 8 hour(s) | | 0.005 | 0.03 | | | 0.005 | 0.5 | H |
| | 15 minutes | | 0.01 | 0.09 | | | | | |
| | C | | | | | | | | |
| 2,4'-METHYLENEDIPHENYL DI-ISOCYANATE | 8 hour(s) | | | 0.03 | | | | | |
| | 15 minutes | | | 0.09 | | | | | |
| | C | | | | | | | | |
| 2,2'-METHYLENEDIPHENYL DIISOCYANATE | 8 hour(s) | | | 0.03 | | | | | |
| | 15 minutes | | | 0.09 | | | | | |
| | C | | | | | | | | |

| Substance name | Limit value | Sweden | | | | |
|-------------------------------------|-------------|---------------------|-----|--|--|--|
| | | mg/m ³ | ppm | | | |
| 4,4'-METHYLENEDIPHENYL DIISOCYANATE | 8 hour(s) | 0.03 | | | | |
| | 15 minutes | 0.05 ^[5] | | | | |
| | C | | | | | |
| 2,2'-METHYLENEDIPHENYL DIISOCYANATE | 8 hour(s) | 0.03 | | | | |
| | 15 minutes | | | | | |
| | C | 0.05 | | | | |

Source : SUVA, Dutch Health Council, 2006/15/EC, 2004/37/EC, LOLI DB, 2000/39/EC, GWBB/VLEP, Gestis, 91/322/EEC, 2017/164/EU, INRS (Fr), TRGS 905, TRGS 910, Austrian OEL Regulation, Dutch Social-Economic Council (SER), US OSHA, EU OSHA, TRGS 900, ACGIH®, 2009/161/EU

20 °C, 1013 mbar: European Union / China / South Korea

25 °C, 1013 mbar: United States / Canada / Japan

[x]: appraisal period x minutes

C: peak limitation

H: skin resorptive

S: Statutory threshold limit value

ALARA: As low as reasonably achievable (ALARA principle).

Remark Occupational exposure limit values

Provide adequate ventilation as well as local exhaust at critical locations.

DNEL (Derived No Effect Level (DNEL-value))

| Substance name | Exposure route | DNEL worker | | | |
|--------------------------------------|------------------------------------|---------------|------------|-----------|------------|
| | | systemic | | local | |
| | | long-term | short-term | long-term | short-term |
| 4,4'-METHYLENEDIPHENYL DIISOCYANATE | oral [mg/kg bw/day] | Not required. | | | |
| | Inhalation [mg/m ³] 00 | | | 0.05 | 0.1 |
| | dermal [mg/kg bw/day] | | | | |
| 2,4'-METHYLENEDIPHENYL DI-ISOCYANATE | oral [mg/kg bw/day] | Not required. | | | |
| | Inhalation [mg/m ³] 00 | | | 0.05 | 0.1 |
| | dermal [mg/kg bw/day] | | | | |
| 2,2'-METHYLENEDIPHENYL DIISOCYANATE | oral [mg/kg bw/day] | Not required. | | | |
| | Inhalation [mg/m ³] 00 | | | 0.05 | 0.1 |
| | dermal [mg/kg bw/day] | | | | |

PNEC (Predicted No Effect Concentration (PNEC-value))

| Substance name | aquatic, freshwater [mg/L] | aquatic, marine water [mg/L] | aquatic, intermittent release [mg/L] | sewage treatment plant [mg/L] | sediment, freshwater [mg/kg sediment dw] | sediment, marine water [mg/kg sediment dw] | soil [mg/kg soil dw] |
|--------------------------------------|----------------------------|------------------------------|--------------------------------------|-------------------------------|--|--|----------------------|
| 4,4'-METHYLENEDIPHENYL DIISOCYANATE | 1 | 0.1 | 10 | 1 | | | 1 |
| 2,4'-METHYLENEDIPHENYL DI-ISOCYANATE | 1 | 0.1 | 10 | 1 | | | 1 |
| 2,2'-METHYLENEDIPHENYL DIISOCYANATE | 1 | 0.1 | 10 | 1 | | | 1 |

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations. Use explosion-proof machinery, apparatus, ventilation facilities, tools etc. Safe handling: see section 7

8.2.2. Personal protection equipment

Eye/face protection : Suitable eye protection: acid-resistant goggles.

Skin protection

Hand protection : Suitable material: NBR (Nitrile rubber). Butyl caoutchouc (butyl rubber). For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Body protection : Suitable protective clothing: Only wear fitting, comfortable and clean protective clothing. Chemical protection clothing. Protective sleeves. Chemical resistant safety shoes.

Respiratory protection : If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Use only respiratory protection equipment with CE-symbol including four digit test number. Suitable respiratory protection apparatus: Filter type: A.

8.2.3. Environmental exposure controls

See section 7. No additional measures necessary.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|-----------------------------|
| Physical state | : Liquid |
| Appearance | : No information available. |
| Colour | : brown |
| Odour | : earthy |
| Odour threshold | : No information available. |
| pH | : not applicable |
| Melting point/freezing point | : -30 °C |
| Initial boiling point and boiling range | : >300 °C |
| Flash point | : 202 °C |
| Evaporation rate | : No information available. |
| flammability | : No information available. |
| Upper/lower flammability or explosive limits | |
| Upper explosion limit | : No information available. |
| Lower explosion limit | : No information available. |
| Vapour pressure | : 1.2 kPa (20 °C) |
| Vapour density | : No information available. |
| Relative density | : 1.22 (water=1) (20 °C) |
| Solubility(ies) | |
| Water | : not applicable |
| Partition coefficient n-octanol/water | : No information available. |
| Auto-ignition temperature | : 500 °C |
| Decomposition temperature | : 200 °C |
| Viscosity | : 26.8 mPa·s (20 °C) |
| Explosive properties: | : not applicable |
| Oxidising properties | : not applicable |

9.2. Other information

| | |
|---|-----------------------------|
| Critical temperature T_c | : not applicable |
| Fat solubility | : No information available. |

SECTION 10: Stability and reactivity

10.1. Reactivity

This material is considered to be non-reactive under normal use conditions.

10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid

Carbon dioxide is generated with water or moisture.

10.5. Incompatible materials

Oxidising substances - Acids - alkali - Alcohols - Amines

10.6. Hazardous decomposition products

Decomposition products in case of fire: see section 5.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

| | |
|----------------------------|-----------------------------|
| Following ingestion | : No |
| Skin contact | : No |
| Inhalation | : Acute inhalation toxicity |

| Substances | Dose / Concentration | Value | Species | Exposure time | Method |
|---|----------------------|-------------|---------|---------------|----------|
| 4,4'-METHYLENEDIPHENYL DIISOCYANATE | | | | | |
| oral | LD50: | >2000 mg/kg | Rat | | |
| dermal | LD50: | >9400 mg/kg | Rabbit | | |
| Inhalation (dust/mist) | LC50: | 0.431 mg/L | Rat | 4 hour(s) | OECD 403 |
| 2,4'-METHYLENEDIPHENYL DI-ISOCYANATE | | | | | |
| oral | LD50: | >2000 mg/kg | Rat | | OECD 401 |
| dermal | LD50: | >9400 mg/kg | Rabbit | | OECD 402 |
| Inhalation (dust/mist) | LC50: | 0.49 mg/L | Rat | 4 hour(s) | OECD 403 |
| DIPHENYLMETHANEDIISOCYANATE, ISOMERES AND HOMOLOGUES | | | | | |
| oral | LD50: | 49000 mg/kg | Rat | | |
| dermal | LD50: | >9400 mg/kg | Rabbit | | |
| Inhalation (dust/mist) | LC50: | 0.49 mg/L | Rat | 4 hour(s) | |
| 2,2'-METHYLENEDIPHENYL DIISOCYANATE | | | | | |
| oral | LD50: | >5000 mg/kg | Rat | | OECD 425 |
| dermal | LD50: | >9400 mg/kg | Rabbit | | OECD 402 |
| Inhalation (dust/mist) | LC50: | 0.37 mg/L | Rat | 4 hour(s) | OECD 403 |
| Mixture | | | | | |
| | Dose / Concentration | Value | Species | Exposure time | Method |
| Inhalation (vapour) | ATEmix calculated: | 1.5 mg/L | Rat | 4 hour(s) | |

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/eye irritation : Causes serious eye irritation.

Respiratory or skin sensitisation : May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Germ cell mutagenicity : No indications of human germ cell mutagenicity exist.

Carcinogenicity : Suspected of causing cancer.

Reproductive toxicity : No indications of human reproductive toxicity exist.

STOT-single exposure : May cause respiratory irritation.

STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : not applicable

Symptoms

Following inhalation : Irritating feeling. May cause:., sore throat, Cough, Asthmatic complaints, Respiratory complaints

Following skin contact : Irritating feeling. May cause:., redness, pain

After eye contact : Irritating feeling. May cause:., Allergic reactions, Has degreasing effect on the skin.

Following ingestion : Irritating feeling. May cause:., sore throat, Abdominal pain

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

11.2.2. Other information

No information available.

SECTION 12: Ecological information

12.1. Toxicity

| Substance name | Acute (short-term) fish toxicity | Acute (short-term) toxicity to crustacea | Acute (short-term) toxicity to algae and cyanobacteria | Toxicity to other aquatic plants/organisms |
|--------------------------------------|--|--|--|--|
| 4,4'-METHYLENEDIPHENYL DIISOCYANATE | LC50: >100 mg/L 96 hour(s) Danio rerio (zebrafish) - Source: ECHA - Method: OECD 203 | EC50: 9 mg/L 48 hour(s) Daphnia magna (Big water flea) - Source: ECHA - Method: OECD 202 | EC50: >100 mg/L 72 hour(s) Desmodesmus subspicatus - Source: ECHA - Method: OECD 201 | |
| 2,4'-METHYLENEDIPHENYL DI-ISOCYANATE | LC50: >1000 mg/L 96 hour(s) Fish - Source: ECHA - Method: OECD 203 | EC50: >1000 mg/L 48 hour(s) Daphnia - Source: ECHA - Method: OECD 202 | NOEC: 1640 mg/L 72 hour(s) Algae - Source: ECHA - Method: OECD 201 | |
| 2,2'-METHYLENEDIPHENYL DIISOCYANATE | LC50: >1000 mg/L 96 hour(s) Fish - Source: ECHA - Method: OECD 203 | | IC50: >1640 mg/L 72 hour(s) Algae - Source: ECHA - Method: OECD 202 | |

| Substance name | Chronic (long-term) fish toxicity | Chronic (long-term) toxicity to aquatic invertebrate | Chronic (long-term) toxicity to aquatic algae and cyanobacteria | Toxicity to other aquatic plants/organisms |
|-------------------------------------|-----------------------------------|--|--|--|
| 4,4'-METHYLENEDIPHENYL DIISOCYANATE | | | NOEC: ≥100 mg/L 72 hour(s) Desmodesmus subspicatus - Source: ECHA - Method: OECD 201 | |

12.2. Persistence and degradability

Biodegradation

- 4,4'-METHYLENEDIPHENYL DIISOCYANATE : Not readily biodegradable (according to OECD criteria) - Source: ECHA - Method: OECD 301F
- 2,4'-METHYLENEDIPHENYL DI-ISOCYANATE : none - Source: ECHA - Method: OECD 302C

Chemical oxygen demand (COD)

: No information available.

Biochemical oxygen demand

: No information available.

BOD5/COD ratio

: No information available.

12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

Bioconcentration factor (BCF)

: No information available.

Partition coefficient n-octanol/water

: No information available.

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

No information available.

12.8. Additional ecotoxicological information

Observe local regulations concerning effluent treatment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Collect the waste separately. The generation of waste should be avoided or minimized wherever possible. Waste disposal should be in accordance with applicable local and/or national legislation. Waste should not be disposed of by release to water, drainage, sewer, or the ground.

Other disposal recommendations : not applicable

SECTION 14: Transport information

14.1. UN number or ID number

No dangerous good in sense of these transport regulations.

14.2. UN proper shipping name

No dangerous good in sense of these transport regulations.

14.3. Transport hazard class(es)

No dangerous good in sense of these transport regulations.

14.4. Packing group

No dangerous good in sense of these transport regulations.

14.5. Environmental hazards

Marine pollutant : No

14.6. Special precautions for user

No dangerous good in sense of these transport regulations.

14.7. Maritime transport in bulk according to IMO instruments

No information available.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

International regulations:

Minamata Convention on Mercury : not applicable

EU legislation

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]
not applicable

This mixture contains the following substances of very high concern (SVHC) which are subject to authorisation according to Annex XIV of REACH:

not applicable

Overall Assessment on CMR properties

according to Regulation (EC) No. 1907/2006 (REACH) : not applicable

Regulation (EC) No 850/2004 [POP-Regulation]

not applicable

Regulation (EC) No. 2037/2000 concerning materials, which cause damage to the ozone layer.

not applicable

Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

Observe employment restrictions under the Maternity Protection Directive 92/85/EEC or stricter national regulations, if applicable.

15.2. Chemical Safety Assessment

No information available.

SECTION 16: Other information

Additional information

May contain traces of: Phenyl Isocyanate.

Relevant H-phrases (Number and full text)

| | |
|------|--|
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H335 | May cause respiratory irritation. |
| H351 | Suspected of causing cancer. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |

EUH204 Contains isocyanates. May produce an allergic reaction.

Abbreviations and acronyms

| | |
|-----------|---|
| ACGIH® | American Conference of Governmental Industrial Hygienists |
| ADR | Accord européen relatif au transport international des marchandises Dangereuses par Route |
| AICS | Australian Inventory of Chemical Substances |
| BuAc | n-Butyl acetate |
| CAS | Chemical Abstracts Service |
| CCID | New Zealand Chemical Classification and Information Database |
| DSL | Canada Domestic Substances List |
| ECHA-RAC | ECHA Committee for Risk Assessment |
| EFSA | European Food Safety Authority |
| EHSP | OECD Environment, Health, and Safety Publication |
| EmS | Emergency Schedule |
| EU-CLH | European Union Harmonised Classification and Labelling |
| GESTIS | Databases on hazardous substances of the German Social Accident Insurance |
| GHS | Globally Harmonised System of Classification and Labelling of Chemicals |
| GWBB-VLEP | Grenswaarden voor beroepsmatige blootstelling/Valeurs limites d'exposition professionnelle |
| HHS | U.S. Department of Health and Human Services |
| HSDB | Hazardous Substances Data Bank |
| IARC | International Agency for Research on Cancer |
| IATA | International Air Transport Association |
| ICAO | International Civil Aviation Organization |
| IMDG | International Maritime Dangerous Goods |
| IMO | International Maritime Organization |
| INRS | French National Research and Safety Institute for the Prevention of Occupational Accidents and Diseases |
| JP-GHS | Japan GHS Basis for Classification Data |
| KHC | Known human carcinogens. |
| LEL | Lower explosion limit |
| LOLI | LOLI (List of Lists) Database |
| n.a. | not applicable |
| NDSL | Canada Non-domestic Substance List |
| NICNAS | Australia National Industrial Chemicals Notification and Assessment Scheme |
| NIER | South Korea National Institute of Environmental Research Evaluations |
| NLM | United States National Library of Medicine |
| NTP | National Toxicology Program |
| NZIoC | New Zealand Inventory of Chemicals |
| OECD | Organisation for Economic Co-operation and Development |
| OSHA | Occupational Safety & Health Administration |
| OUE | European Odour Unit |
| RAHC | Reasonably Anticipated Human Carcinogen |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals |
| RID | Regulations concerning the International Carriage of Dangerous Goods by Rail |
| SCOEL | Scientific Committee on Occupational Exposure Limits (EU) |
| SIDS | OECD Screening Information Data Sets |
| SUVA | Swiss Accident Insurance Fund |
| TRGS | Technische Regeln für Gefahrstoffe |
| TSCA | The Toxic Substances Control Act Chemical Substance Inventory |
| TWA | Time Weighted Average |
| UEL | Upper explosion limit |
| UN | United Nations |
| US-EPA | United States Environmental Protection Agency |

Disclaimer: The information provided in this Safety Data Sheet is believed to be correct as of the date issued. Philips Electronics Nederland B.V. makes no warranty as to its contents, nor as to its fitness for any particular purpose or use.



Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Date last verification : 2021-12-14
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Version : 2.0

Indication of changes : §1.2 - §2.2 - §4.1 - §4.2 - §5.1 - §5.2 - §5.3 - §6.1 - §7.1 - §8.2 - §9.1 - §11.1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Safety Data Sheet : 33573
Product name: : CLEANING TISSUES WET

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses : Presaturated wipes
Uses advised against : No information available.

1.3. Details of the supplier of the safety data sheet

Supplier : LOVINK ENERTECH B.V.
Postbus 111
7060 AC Terborg
The Netherlands
Telephone : +31 315 335600
Responsible for the compilation of
the SDS on behalf of the supplier/
manufacturer : hazcom@philips.com

1.4. Emergency telephone number

Emergency telephone number (regarding transport of DG) : +31 (0)497-598315

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

2.1.1. Classification according to Regulation (EC) No 1272/2008 [CLP]

This article doesn't contain hazardous substances or mixtures intended to be released under normal or reasonably foreseeable conditions of use.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

none

Remarks on labelling

As an article, this product presents negligible health and physical hazards under reasonably anticipated conditions of use. Accordingly, a Safety Data Sheet (SDS) is not required for this product under the standards cited above. This document is prepared as a courtesy to provide persons using this product with additional safety and regulatory information.

2.3. Other hazards

No information available.

SECTION 3: Composition / information on ingredients

3.2. Mixture

| Substance name | CAS No. | EC No. | REACH No. | Concentration (%) | Classification according to Regulation (EC) No 1272/2008 [CLP] |
|---|-------------|-----------|------------------|-------------------|---|
| HYDROCARBONS, C11-C13, ISOALKANES, <2% AROMATICS | 246538-78-3 | 920-901-0 | 01-2119456810-40 | >15.0 - <18.0 | GHS08 H304 Asp. Tox. 1 EUH066 |
| HYDROCARBONS, C11-C12, ISOALKANES, <2% AROMATICS (H226) | 246538-76-1 | 807-661-1 | | >15.0 - <18.0 | GHS02 GHS08 H226 Flam. Liq. 3 H304 Asp. Tox. 1 EUH066 |

Full text of H- and EUH-statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

- General information** : No special measures are necessary.
- Following inhalation** : No special measures are necessary.
- Following skin contact** : No special measures are necessary. In case of skin irritation, consult a physician.
- After eye contact** : No special measures are necessary. When in doubt or if symptoms are observed, get medical advice.
- Following ingestion** : No special measures are necessary.
- Self-protection of the first aider** : First aider: Pay attention to self-protection!

4.2. Most important symptoms and effects, both acute and delayed

Adverse human health effects and symptoms / Organs affected:

not applicable

Following inhalation : not applicable

Following skin contact : not applicable

After eye contact : not applicable

Following ingestion : not applicable

Further information: SECTION 11: Toxicological information

4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor : Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Dry extinguishing powder. - Foam. - Carbon dioxide (CO₂).

Unsuitable extinguishing media : No information available.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

In case of fire may be liberated : Carbon monoxide - Carbon dioxide (CO₂)

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. Flame-retardant protective clothing. (EN 469)

5.4. Additional information

Do not allow run-off from fire-fighting to enter drains or water courses.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protection equipment.

6.1.1. For non-emergency personnel

Protective equipment : Personal protection equipment: see section 8.

Emergency procedures : not applicable.

6.1.2. For emergency responders

Personal protection equipment : Personal protection equipment: see section 8.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains. Ensure waste is collected and contained.

6.3. Methods and material for containment and cleaning up

6.3.1. For containment

not applicable.

6.3.2. For cleaning up

not applicable.

6.3.3. Other information

not determined

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling : No special handling advices are necessary.

Measures to prevent fire : The product is not:Flammable.No special fire protection measures are necessary.

Measures to prevent aerosol and dust generation : Not dust explosive.

Environmental precautions : Avoid release to the environment.

Advices on general occupational hygiene : When using do not eat, drink, smoke, sniff.Take off contaminated clothing.Wash hands before breaks and after work.

Further information : No information available.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions : Special precautions for user: none.

storage temperature : No information available.

Requirements for storage rooms and vessels : No information available.

Storage class : No information available.

Materials to avoid : No information available.

Further information on storage conditions : No information available.

7.3. Specific end use(s)

Recommendation : not applicable

Industrial sector specific solutions : No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limit values

| Substance name | Limit value | Germany | | | | | |
|--|-------------|---------------------------------|-----|--|--|--|--|
| | | mg/m ³ | ppm | | | | |
| HYDROCARBONS, C11-C13, ISOALKANES, <2% AROMATICS | | (C9-C14-aliphatic hydrocarbons) | | | | | |
| | 8 hour(s) | 300 | | | | | |
| | 15 minutes | 600 | | | | | |
| | C | | | | | | |

Source : SUVA, Dutch Health Council, 2006/15/EC, 2004/37/EC, LOLI DB, 2000/39/EC, GWBB/VLEP, Gestis, 91/322/EEC, 2017/164/EU, INRS (Fr), TRGS 905, TRGS 910, Austrian OEL Regulation, Dutch Social-Economic Council (SER), US OSHA, EU OSHA, TRGS 900, ACGIH®, 2009/161/EU

20 °C, 1013 mbar: European Union / China / South Korea

25 °C, 1013 mbar: United States / Canada / Japan

[X]: appraisal period x minutes
C: peak limitation
H: skin resorptive
S: Statutory threshold limit value
ALARA: As low as reasonably achievable (ALARA principle).

Remark Occupational exposure limit values

none

DNEL (Derived No Effect Level (DNEL-value))

No information available.

PNEC (Predicted No Effect Concentration (PNEC-value))

No information available.

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations. Use explosion-proof machinery, apparatus, ventilation facilities, tools etc. Safe handling: see section 7 Technical measures and the application of suitable work processes have priority over personal protection equipment.

8.2.2. Personal protection equipment

Eye/face protection : Eye protection: not required.
Skin protection
Hand protection : Hand protection is not required.
Body protection : Body protection: not required.
Respiratory protection : Usually no personal respirative protection necessary.

8.2.3. Environmental exposure controls

See section 7. No additional measures necessary.

8.3. Additional information

No further relevant information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : not applicable
Appearance : tissue, wetted product
Colour : colourless
Odour : odourless
Odour threshold : No information available.
pH : not applicable
Melting point/freezing point : <-25 °C
Initial boiling point and boiling range : not applicable
Flash point : No information available.
Evaporation rate : not applicable
flammability : No information available.
Upper/lower flammability or explosive limits
Upper explosion limit : not applicable
Lower explosion limit : not applicable
Vapour pressure : not applicable
Vapour density : not applicable
Relative density : not applicable
Solubility(ies)
Water : not applicable
Partition coefficient n-octanol/water : No information available.
Auto-ignition temperature : not applicable
Decomposition temperature : No information available.
Viscosity : 1.32 mPa·s (40 °C)
Explosive properties: : not applicable
Oxidising properties : not applicable

9.2. Other information

Critical temperature Tc : not applicable
Fat solubility : not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

This material is considered to be non-reactive under normal use conditions.

10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid

Stable under recommended storage and handling conditions.

10.5. Incompatible materials

Oxidising substances

10.6. Hazardous decomposition products

No known hazardous decomposition products.

10.7. Additional information

No information available.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Following ingestion : No
Skin contact : No
Inhalation : No

| Substances | Dose / Concentration | Value | Species | Exposure time | Method |
|--|----------------------|-------------|---------|---------------|----------|
| HYDROCARBONS, C11-C13, ISOALKANES, <2% AROMATICS | | | | | |
| oral | LD50: | >5000 mg/kg | Rat | | OECD 401 |
| dermal | LD50: | >5000 mg/kg | Rabbit | | OECD 402 |

Skin corrosion/irritation : not applicable

Serious eye damage/eye irritation : not applicable

Respiratory or skin sensitisation : not applicable

Germ cell mutagenicity : not applicable

Carcinogenicity : not applicable

Reproductive toxicity : not applicable

STOT-single exposure : not applicable

STOT-repeated exposure : not applicable

Aspiration hazard : not applicable

Symptoms

Following inhalation : not applicable

Following skin contact : not applicable

After eye contact : not applicable

Following ingestion : not applicable

SECTION 12: Ecological information

12.1. Toxicity

| Substance name | Acute (short-term) fish toxicity | Acute (short-term) toxicity to crustacea | Acute (short-term) toxicity to algae and cyanobacteria | Toxicity to other aquatic plants/organisms |
|---|--|---|---|--|
| HYDROCARBONS, C11-C13, ISOALKANES, <2% AROMATICS | LC50: >1000 mg/L 96 hour(s) Fish - Source: ECHA - Method: OECD 203 | EC50: >1000 mg/L 48 hour(s) Daphnia - Source: ECHA - Method: OECD 202 | IC50: >1000 mg/L 72 hour(s) Algae - Source: ECHA - Method: OECD 201 | |
| HYDROCARBONS, C11-C12, ISOALKANES, <2% AROMATICS (H226) | LC50: 1000 mg/L 96 hour(s) Fish - Source: Supplier | EC50: 1000 mg/L 48 hour(s) Daphnia - Source: Supplier | IC50: 1000 mg/L 72 hour(s) Algae - Source: Supplier | |

12.2. Persistence and degradability

| | |
|-------------------------------------|-----------------------------|
| Biodegradation | : No information available. |
| Chemical oxygen demand (COD) | : No information available. |
| Biochemical oxygen demand | : No information available. |
| BOD5/COD ratio | : No information available. |

12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

| | |
|--|-----------------------------|
| Bioconcentration factor (BCF) | : No information available. |
| Partition coefficient n-octanol/water | : No information available. |

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

12.6. Other adverse effects

No information available.

12.7. Additional ecotoxicological information

Observe local regulations concerning effluent treatment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Dispose of contents/container to industrial incineration plant. Following consultation with waste management company and after physico-chemical pre-treatment, landfill together with household waste.

Other disposal recommendations : not applicable

SECTION 14: Transport information

14.1. UN number

No dangerous good in sense of these transport regulations.

14.2. UN proper shipping name

No dangerous good in sense of these transport regulations.

14.3. Transport hazard class(es)

No dangerous good in sense of these transport regulations.

14.4. Packing group

No dangerous good in sense of these transport regulations.

14.5. Environmental hazards

Marine pollutant : No

14.6. Special precautions for user

No dangerous good in sense of these transport regulations.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No information available.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

International regulations:

Minamata Convention on Mercury : not applicable

EU legislation

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]
not applicable

This mixture contains the following substances of very high concern (SVHC) which are subject to authorisation according to Annex XIV of REACH:

not applicable

Overall Assessment on CMR properties

according to Regulation (EC) No. 1907/2006 (REACH) : not applicable

Regulation (EC) No 850/2004 [POP-Regulation]

not applicable

Regulation (EC) No. 2037/2000 concerning materials, which cause damage to the ozone layer.

not applicable

Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

Observe employment restrictions under the Maternity Protection Directive 92/85/EEC or stricter national regulations, if applicable.

15.2. Chemical Safety Assessment

No information available.

SECTION 16: Other information

Additional information

none

Relevant H-phrases (Number and full text)

| | |
|--------|---|
| H226 | Flammable liquid and vapour. |
| H304 | May be fatal if swallowed and enters airways. |
| EUH066 | Repeated exposure may cause skin dryness or cracking. |

Abbreviations and acronyms

| | |
|-----------|---|
| ACGIH® | American Conference of Governmental Industrial Hygienists |
| ADR | Accord européen relatif au transport international des marchandises Dangereuses par Route |
| AICS | Australian Inventory of Chemical Substances |
| BuAc | n-Butyl acetate |
| CAS | Chemical Abstracts Service |
| CCID | New Zealand Chemical Classification and Information Database |
| DSL | Canada Domestic Substances List |
| ECHA-RAC | ECHA Committee for Risk Assessment |
| EFSA | European Food Safety Authority |
| EHSP | OECD Environment, Health, and Safety Publication |
| EmS | Emergency Schedule |
| EU-CLH | European Union Harmonised Classification and Labelling |
| GESTIS | Databases on hazardous substances of the German Social Accident Insurance |
| GHS | Globally Harmonised System of Classification and Labelling of Chemicals |
| GWBB-VLEP | Grenswaarden voor beroepsmatige blootstelling/Valeurs limites d'exposition professionnelle |
| HHS | U.S. Department of Health and Human Services |
| HSDB | Hazardous Substances Data Bank |
| IARC | International Agency for Research on Cancer |
| IATA | International Air Transport Association |
| ICAO | International Civil Aviation Organization |
| IMDG | International Maritime Dangerous Goods |
| IMO | International Maritime Organization |
| INRS | French National Research and Safety Institute for the Prevention of Occupational Accidents and Diseases |
| JP-GHS | Japan GHS Basis for Classification Data |
| KHC | Known human carcinogens. |
| LEL | Lower explosion limit |

| | |
|--------|--|
| LOLI | LOLI (List of Lists) Database |
| n.a. | not applicable |
| NDSL | Canada Non-domestic Substance List |
| NICNAS | Australia National Industrial Chemicals Notification and Assessment Scheme |
| NIER | South Korea National Institute of Environmental Research Evaluations |
| NLM | United States National Library of Medicine |
| NTP | National Toxicology Program |
| NZIoC | New Zealand Inventory of Chemicals |
| OECD | Organisation for Economic Co-operation and Development |
| OSHA | Occupational Safety & Health Administration |
| OUE | European Odour Unit |
| RAHC | Reasonably Anticipated Human Carcinogen |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals |
| RID | Regulations concerning the International Carriage of Dangerous Goods by Rail |
| SCOEL | Scientific Committee on Occupational Exposure Limits (EU) |
| SIDS | OECD Screening Information Data Sets |
| SUVA | Swiss Accident Insurance Fund |
| TRGS | Technische Regeln für Gefahrstoffe |
| TSCA | The Toxic Substances Control Act Chemical Substance Inventory |
| TWA | Time Weighted Average |
| UEL | Upper explosion limit |
| UN | United Nations |
| US-EPA | United States Environmental Protection Agency |

Disclaimer: The information provided in this Safety Data Sheet is believed to be correct as of the date issued. Philips Electronics Nederland B.V. makes no warranty as to its contents, nor as to its fitness for any particular purpose or use.

SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008



Authoring date: 13-Oct-2023
Revision date: 13-Oct-2023

Revision Number: 4

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Safety data sheet number 40281
Product Name LOVINK SILICONE PASTE

Other means of identification

Pure substance/mixture Mixture

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use No information available
Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

supplier
LOVINK ENERTECH B.V.
Postbus 111
7060 AC Terborg
The Netherlands
Tel.: +31 315 335600

For further information, please contact

E-Mail address hazcom@philips.com

1.4. Emergency telephone number

Emergency Telephone +31 497 598315(EMERG)

Emergency Telephone - §45 - (EC)1272/2008

Europe 112

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

2.2. Label elements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

Hazard statements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]
EUH210 - Safety data sheet available on request

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.1 Substances

| Chemical name | Weight-% | REACH registration number | EC No (EU Index No) | Classification according to Regulation (EC) No. 1272/2008 [CLP] | Specific concentration limit (SCL) | M-Factor | M-Factor (long-term) |
|----------------------------|----------|---------------------------|---------------------|---|------------------------------------|----------|----------------------|
| POLYDIMETHYLSILOXANES - | 0 | No data available | - | No data available | - | - | - |

Full text of H- and EUH-phrases: see section 16

Acute Toxicity Estimate

No information available

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures

| | |
|---------------------|--|
| Inhalation | Remove to fresh air. |
| Eye contact | Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician. |
| Skin contact | Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician. |
| Ingestion | Rinse mouth. |

4.2. Most important symptoms and effects, both acute and delayed

Symptoms No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

SECTION 5: Firefighting measures**5.1. Extinguishing media**

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical No information available.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Personal precautions Ensure adequate ventilation.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Take up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

Advice on safe handling Ensure adequate ventilation.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Maximum storage temperature. < 50.

Storage class (TRGS 510) Storage class 10

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Exposure Limits**

Biological occupational exposure limits This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) No information available.

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls**Personal protective equipment**

Eye/face protection No special protective equipment required.

Skin and body protection No special protective equipment required.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls No information available.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state Liquid
Appearance Paste
Color transparent colorless white
Odor Odorless.
Odor threshold No information available

| <u>Property</u> | <u>Values</u> | <u>Remarks • Method</u> |
|---------------------------------------|-------------------|-------------------------|
| Melting point / freezing point | No data available | None known |

| | | |
|--|--------------------------|-----------------------|
| Initial boiling point and boiling range | No data available | None known |
| Flammability | No data available | None known |
| Flammability Limit in Air | | None known |
| Upper flammability or explosive limits | No data available | |
| Lower flammability or explosive limits | No data available | |
| Flash point | > 300 °C | None known |
| Autoignition temperature | No data available | None known |
| Decomposition temperature | > 150 °C | None known |
| pH | No data available | None known |
| pH (as aqueous solution) | No data available | None known |
| Kinematic viscosity | No data available | None known |
| Dynamic viscosity | No data available | None known |
| Water solubility | No data available | practically insoluble |
| Solubility(ies) | No data available | None known |
| Partition coefficient | No data available | None known |
| Vapor pressure | No data available | None known |
| Relative density | 0.950 | @ 20 °C |
| Bulk density | No data available | |
| Liquid Density | No data available | |
| Relative vapor density | No data available | None known |
| Particle characteristics | | |
| Particle Size | No information available | |
| Particle Size Distribution | No information available | |

9.2. Other information

9.2.1. *Information with regard to physical hazard classes*
Not applicable

9.2.2. *Other safety characteristics*
No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No information available.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid No information available.

10.5. Incompatible materials

Incompatible materials None known based on information supplied.

10.6. Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

SECTION 11: Toxicological information**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008****Information on likely routes of exposure****Product Information**

| | |
|---------------------|---|
| Inhalation | Specific test data for the substance or mixture is not available. |
| Eye contact | Specific test data for the substance or mixture is not available. |
| Skin contact | Specific test data for the substance or mixture is not available. |
| Ingestion | Specific test data for the substance or mixture is not available. |

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Acute toxicity**Numerical measures of toxicity**

The following values are calculated based on chapter 3.1 of the GHS document

ATE_{mix} (oral) 3,163.20 mg/kg

Component Information**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

Skin corrosion/irritation No information available.

Serious eye damage/eye irritation No information available.

Respiratory or skin sensitization No information available.

| Method | Species | Exposure route | Results |
|--------|---------|----------------|----------------|
| | | | Not applicable |

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disrupting properties No information available.

11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity The environmental impact of this product has not been fully investigated.

Unknown aquatic toxicity Contains 0 % of components with unknown hazards to the aquatic environment.

12.2. Persistence and degradability

Persistence and degradability No information available.

| Chemical name | Code | Method | Reference sources |
|-----------------------|---------------------------|---------------|-------------------|
| POLYDIMETHYLSILOXANES | No information available. | not traceable | not traceable |

12.3. Bioaccumulative potential

Bioaccumulation There is no data for this product.

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment No information available.

12.6. Endocrine disrupting properties

Endocrine disrupting properties No information available.

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

| | |
|--|---|
| Waste from residues/unused products | Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation. |
| Contaminated packaging | Do not reuse empty containers. |

SECTION 14: Transport information**IATA**

| | |
|--|----------------|
| 14.1 UN number or ID number | none |
| 14.2 UN proper shipping name | Not regulated |
| 14.3 Transport hazard class(es) | Not regulated |
| 14.4 Packing group | Not regulated |
| 14.5 Environmental hazards | Not applicable |
| 14.6 Special precautions for user | |
| Special Provisions | None |

IMDG

| | |
|---|--------------------------|
| 14.1 UN number or ID number | Not regulated |
| 14.2 UN proper shipping name | Not regulated |
| 14.3 Transport hazard class(es) | Not regulated |
| 14.4 Packing group | Not regulated |
| 14.5 Environmental hazards | Not applicable |
| 14.6 Special precautions for user | |
| Special Provisions | None |
| 14.7 Maritime transport in bulk according to IMO instruments | No information available |

RID

| | |
|--|----------------|
| 14.1 UN number or ID number | Not regulated |
| 14.2 UN proper shipping name | Not regulated |
| 14.3 Transport hazard class(es) | Not regulated |
| 14.4 Packing group | Not regulated |
| 14.5 Environmental hazards | Not applicable |
| 14.6 Special precautions for user | |
| Special Provisions | None |

ADR

| | |
|--|----------------|
| 14.1 UN number or ID number | Not regulated |
| 14.2 UN proper shipping name | Not regulated |
| 14.3 Transport hazard class(es) | Not regulated |
| 14.4 Packing group | Not regulated |
| 14.5 Environmental hazards | Not applicable |
| 14.6 Special precautions for user | |
| Special Provisions | None |

SECTION 15: Regulatory information

National regulations**Germany**

Water hazard class (WGK) non-hazardous to water (nwg)

Netherlands

Water contaminating class (Netherlands)

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorizations and/or restrictions on use:

This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants

Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

International Inventories

| | |
|----------------------|--|
| TSCA | Contact supplier for inventory compliance status |
| DSL/NDSL | Contact supplier for inventory compliance status |
| EINECS/ELINCS | Contact supplier for inventory compliance status |
| ENCS | Contact supplier for inventory compliance status |
| IECSC | Contact supplier for inventory compliance status |
| KECL | Contact supplier for inventory compliance status |
| PICCS | Contact supplier for inventory compliance status |
| TCSI | Contact supplier for inventory compliance status |
| AIIC | Contact supplier for inventory compliance status |
| NZIoC | Contact supplier for inventory compliance status |

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

TCSI - Taiwan Chemical Substance Inventory

AIIC - Australian Inventory of Industrial Chemicals

NZIoC - New Zealand Inventory of Chemicals

15.2. Chemical safety assessment

Chemical Safety Report No information available

SECTION 16: Other information**Key or legend to abbreviations and acronyms used in the safety data sheet****Legend**

SVHC: Substances of Very High Concern for Authorization

Legend Section 8: Exposure controls/personal protection

TWA TWA (time-weighted average)

Ceiling Maximum limit value

+ Sensitizers

STEL

*

STEL (Short Term Exposure Limit)

Skin designation

| Classification procedure | |
|---|--------------------|
| Classification according to Regulation (EC) No. 1272/2008 [CLP] | Method Used |
| Acute oral toxicity | Calculation method |
| Acute dermal toxicity | Calculation method |
| Acute inhalation toxicity - gas | Calculation method |
| Acute inhalation toxicity - vapor | Calculation method |
| Acute inhalation toxicity - dust/mist | Calculation method |
| Skin corrosion/irritation | Calculation method |
| Serious eye damage/eye irritation | Calculation method |
| Respiratory sensitization | Calculation method |
| Skin sensitization | Calculation method |
| Mutagenicity | Calculation method |
| Carcinogenicity | Calculation method |
| Reproductive toxicity | Calculation method |
| STOT - single exposure | Calculation method |
| STOT - repeated exposure | Calculation method |
| Acute aquatic toxicity | Calculation method |
| Chronic aquatic toxicity | Calculation method |
| Aspiration hazard | Calculation method |
| Ozone | Calculation method |

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)

European Chemicals Agency (ECHA) (ECHA_API)

EPA (Environmental Protection Agency)

Acute Exposure Guideline Level(s) (AEGL(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

National Institute of Technology and Evaluation (NITE)

Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)

National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Revision date 13-Oct-2023

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet